

## More wear comfort, less weight: Plasteel Eyewear made from Evonik's VESTAKEEP® PEEK

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Together with Evonik, Mentor Optical Limited, an eyewear manufacturer based in Hong Kong, successfully developed its new brand model Plasteel using Evonik's high performance plastic VESTAKEEP® PEEK.

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### Plasteel Eyewear

Innovation at Evonik with VESTAKEEP® PEEK supported the creation of the Plasteel Eyewear at Mentor Optical which is a lightweight & tough optical frame with a unique patented plastic rim lock design. The Eyewear weighs just 9 grams whereas traditional frames weigh as much as 23 grams, thereby offering the greatest wear comfortability. In addition, Plasteel frames' rim height can be designed to be as low as 1.6mm while the thickness at the temple can be as thin as 0.9mm. The frames are ultra-strong and can sustain a 360 bending test without breakage providing performance & protection against broken eyewear especially in sport activities. With a patented plastic rim lock design, the frames allow prescription lenses to be mounted easily and eliminate damages associated with traditional 'push through' method.

### VESTAKEEP® for Plasteel

Plasteel inherits its excellent mechanical properties and performance from VESTAKEEP® Polyether ether ketone (PEEK) produced by Evonik Industries. VESTAKEEP® PEEK is a high-performance thermoplastic polymer ideal for producing reliable & long-lasting components for use in the toughest conditions. It is characterized by its superior resistance to stress cracking making it suitable for injection molding very thin components. VESTAKEEP® PEEK has a high energy absorption and its ductile behavior can prevent any premature deformation and cracks in the frames. Furthermore, VESTAKEEP® PEEK has excellent

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biocompatibility and biostability due to the polymers' high chemical resistance and thermal stability.

### **Collaboration for success**

The success of Plasteel frames is the product of a collaboration between three companies: Evonik, Mentor Optical Limited and Ngai Hing Engineering Plastic (NHEP). Evonik provided the critical material & product know-how while NHEP being the strategic distribution partner supported by offering quick local support to Mentor Optical.



*Photo caption: Plasteel Eyewear made from Evonik's VESTAKEEP® PEEK (Source: Mentor Optical Limited).*

Please find further information on [www.vestakeep.com](http://www.vestakeep.com)

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### **Company information**

Evonik, the creative industrial group from Germany, is one of the world leaders in specialty chemicals, operating in the Nutrition & Care, Resource Efficiency and Performance Materials segments. The company benefits from its innovative prowess and integrated technology platforms. In 2015 more than 33,500 employees generated sales of around €13.5 billion and an operating profit (adjusted EBITDA) of about €2.47 billion.

### **About Resource Efficiency**

The Resource Efficiency segment is led by Evonik Resource Efficiency GmbH and supplies high performance materials for environmentally friendly as well as energy-efficient systems to the automotive, paints & coatings, adhesives, construction, and many other industries. This segment employed about 8,600 employees, and generated sales of around €4.3 billion in 2015.

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